

**ABSTRACT OF THE DISCLOSURE**

A beamforming system and method. The inventive beamforming system (100) is adapted for use with an array antenna (112) having a plurality of antenna elements (1 – 7) and includes an FFT (122) for transforming a signal received by an antenna into a plurality of frequency subbands. A plurality of adaptive processors (800) are included for performing adaptive array processing on each of the subbands and providing a plurality of adaptively processed subbands in response thereto. A normalizing processor (900) is also included for normalizing the adaptively processed subbands. In the illustrative embodiment, the signal is a GPS signal and a digital multiplier (126) for applying a weight to a respective frequency subband for each of the elements of the array. The weights are chosen to steer a beam in a direction of a desired signal. Normalization involves adjusting the amplitude of one or more of the subbands to remove any bias distortion due to the adaptive processing thereof.

100  
112  
122  
126  
800  
900  
1  
2  
3  
4  
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6  
7